

Extinct Big Cat in Azerbaijan: the Turanian Tiger

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The Turanian tiger (also known as the Caspian tiger, Hyrcanian tiger, Mazandaran tiger, Caucasian tiger, and Talysh tiger), is a large cat, whose range once spanned a vast area across Anatolia (modern-day Türkiye) to western China. It was also found in Azerbaijan. A literature review reveals that Caspian tigers occupied around 800,000–900,000 km² historically, mostly within coastal ecosystems of tugai and reed-dominated riparian ecosystems at densities up to 2–3 tigers/100 km² (Chestin et al. 2017).

Although the Turanian tiger (lat. *Panthera tigris virgata*) was previously classified as a separate subspecies (Illiger 1815), genetic analysis has revealed that Turanian tigers are genetically similar to the Amur tiger, and the Caspian/Amur tiger ancestor migrated to Central Asia via the Silk Road from eastern China less than 10,000 years ago (Driscoll et al. 2009). It then subsequently traversed the Caucasus westward following the Last Glacial Period (Jungius et al. 2009; Vereshchagin 1967).

Now the International Union for Conservation of Nature (IUCN) classifies continental tigers as a single subspecies—*Panthera tigris tigris* (Kitchener et al. 2017). Even though the population of the Turanian tiger was believed to have gone extinct after an individual tiger was hunted and killed in Hakkari (Türkiye) in 1970, some studies now suggest that a few individuals may have survived in Türkiye and Afghanistan into the 1980s. Nevertheless, before that point scientists declared them prematurely extinct—in the field of ecology the premature declaration of extinction is called the *Romeo error* (Driscoll

et al. 2009; D'Cruze N. 2023; Mazak 1981). Although the causes of the tiger's extinction were well investigated, it was impossible to save the population because it was too late to take steps. However, in the current century, there are new opportunities for the restoration of these tigers to their historical habitat by way of reintroduction. This article deals with the classification history of the Turanian tiger, its characteristics and historical background in our country, the reasons for its extinction and the potential for its revival in the future.



Caspian tiger, Berlin Zoo, 1899. (Public domain)

The History of Classification and Characteristics of Turanian Tigers

At a time when genetic testing was not used (before the 1960s), subspecies of tigers were traditionally defined by

body size, pelage coloration, skull characters, and striping patterns (Mazak 1981). Written sources (inscriptions) about Turanian tigers date back to the ancient period; many ancient Greek philosophers wrote about these tigers. Inscriptions about Turanian tigers can also be found in the Middle Ages. For example, they are mentioned as *Hyrcean tigers* in Shakespeare's *Macbeth* (1606). However, the scientific name for Turanian tigers was first proposed in 1815 by German entomologist Karl Illiger in a classification of mammals across Asia. He mentions "the little greyish tiger" found in the north—in the area surrounding the Caspian Sea and in Persia—and called them *Felis virgata* (striped cat) (Illiger 1815). Later, a German zoologist, Paul Mastchie, described them in an 1897 journal as a separate subspecies based on a pair of Turanian tigers brought to the Berlin Zoo, emphasizing that Illiger's description of "the little greyish tiger" was incorrect, but preserved the epithet *virgata* (Mastchie 1897). Later, unaware of Mastchie's classification, Russian zoologist Konstantin Satunin named them *Felis tigris septentrionalis* (northern tiger), classifying them as a separate subspecies in 1904 on the basis of mounted skins of tigers that were killed in the Lankaran Lowland (Satunin 1906). Later, German zoologist Ernst Schwartz, determined two new subspecies—*F.t.lecoqi* and *F.t.trabata* in 1916—on the basis of tigers obtained from Central Asia around Lake Lobnor and the Ili River (Schwarz 1916).

Based on the literature, Turanian tigers have a darker color, their densely arranged stripes, unlike others, mostly have brown shades rather than black, especially in winter they are distinguished by their long fur and differ in the shape of rings on their tails. Satunin (1906) describes these tigers as follows: "The fur is short on the back and long on the belly. It has 'sideburns' up to 6 cm long on its muzzle and long white hairs stick out inside the ears. Starting from the shoulder, pale thin stripes run down the length of the tiger's body. The darkest (black) stripes are on the animal's back,

and the stripes towards the rear limbs are only brown and arranged densely. There are no stripes on the outside of the forelimbs. There are 10 rings on the tail, the first three of which are angular in shape, directed toward the body, and do not converge under the tail. Toward the end of the tail, the rings, fringed on both sides and having a yellowish-gray coloration inside, shrink and turn black at the tail end."

However, it should be added that pelage coloration, body size, and striping patterns in these tigers were quite variable and there were also individuals with thicker stripes. Schwarz (1916) identified the subspecies *F. t. trabata* after examining a thick-striped individual at the Berlin Zoo.

Turanian tigers were quite large in size. Males measured 270-295 cm in length and weighed up to 240 kg, while females averagely 240-260 cm in length and weighed about 85-135 kg (Mazak 1981). According to Satunin, the skin of a male individual hunted in Goytepe (Jalilabad district) in 1899 was measured 350-360 cm (5 arshins) together with its tail. He described this huge individual as "at least the size of a local horse" (Satunin 1906). A literature review shows that Turanian tigresses have a gestation period of 98-110 days and have a litter of 2 to 6 cubs in April (Vereshchagin 1942).

The Extinction Process of the Turanian Tiger in the Caucasus

The Turanian tiger has been persecuted by humans throughout history. Thus, thousands of Turanian tigers were hunted and captured in many places, primarily in Anatolia and the Caucasus for use in gladiator fights in the ancient Roman period (Rossi et al. 2020). These tigers continued to be hunted over the past few centuries. Even before the 1930s, awards were offered to tiger hunters in various Soviet republics (Geptner and Slutsky 1972). The fur of Turanian tigers was sold at a high price, which created motivation for hunters. However, the greatest enemy of these tigers was the transformation during the Soviet era of vast areas, previously

unused, into arable/agricultural fields. The Soviets also changed the landscape in their campaign to eliminate malaria. Before that campaign, the dense reeds that bore mosquitoes were the favorite places of the Turanian tiger. The campaign allowed humans to settle in these areas by burning and drying reeds, and as a result, humans supplanted the Turanian tigers, the number of which had already begun to dwindle. Likewise, the transformation of the once intact large steppes into arable land or other infrastructure has hastened their extinction. Currently, only 10% of the historical habitat of the Turanian tigers remains intact (Jungius et al. 2009).

Tigers have been hunted in Azerbaijan for many years. For example, issue no. 13 of the newspaper *Kavkaz* in 1846 discusses hunting tigers in the forests of the Talysh mountains (Konstantinov 1846). According to the article, these tigers, unlike other tigers, can be seen in a family group (male and female). The newspaper also shares an interesting story:

A man in Goytepe went out into the yard at night because of the barking dogs to see what was happening. The unfortunate man froze in place when he encountered a tiger in the stable. Luckily, his wife also came out and saw danger threatening her husband. She hit the tiger on the head with the axe she held in her hands, and the tiger attacked her. Severely injured by the blow of the axe, however, the tiger died in a short time. The neighbors came over because of the noise and asked whether she was afraid when the tiger attacked. The woman said she did not know that the animal was a tiger in the dark; she just thought it was a bull or some other animal.

Another edition of the newspaper (No. 92, 1859) and *Adventures in the Caucasus* by Alexandre Dumas write about “a woman hunting tigers with an axe in the Talysh forest.” Dumas (1859) also notes that Prince Vorontsov, viceroy of the Caucasus, invited this axe-wielding woman to Tiflis and conferred a monetary reward and a medal on her. An interesting point is

that an 1846 article of the newspaper says that the event occurred in Goytepe village, while an 1852 article states that it took place in the village of Privolnoye (Jalilabad district). Dumas in his notes denotes the place as Jangamiran, a village in the Lerik district. Dumas writes that the woman herself told him the story. However, given what was explained in the newspaper article above, the incident took place in Goytepe, and thus, the story spread among people. Also, there are quite a few similarities between the events mentioned in Dumas's *Adventures in the Caucasus* and the events reported in the newspaper. Dumas (1859) also writes about a tiger that *blocked* the way of merchants on the Lankaran-Astara road and played with a boy for 10 minutes in the village of Shanaka instead of hunting him.

Chronology of Turanian tigers recorded in Azerbaijan in the
19th and 20th centuries:

Date	Area	Qty	Source	Side note	References
1832	Lankaran	1	Menetrie E.	15 versts (16 km) away from Lankaran	Menetries E. 1832.
1837	Talysh Region	1	Hohenacker R.F.	A fur coat was donated to St. Petersburg Academy.	Hohenacker 1837.
1844	Goytepe	1	<i>Kavkaz</i> newspaper	A joint hunt by a colonel of the Russian border guards and about 200 locals	Konstantinov 1846.

1845	Goytepe	1	<i>Kavkaz</i> newspaper	Dead bodies of a wild boar and a tiger were found side by side (they killed each other)	Konstantinov 1846.
1846	Goytepe	1	<i>Kavkaz</i> newspaper	A woman who kills a tiger with an axe to protect her husband	Konstantinov 1846.
1846	Talysh Region	1	<i>Kavkaz</i> newspaper	Bear hunt of a tiger that wakes up from its sleep	Konstantinov 1846.
1846	Karabagh, Vang (Vank) village	1	<i>Kavkaz</i> newspaper	Tiger, hunted by the villagers after it hunted a cow	Konstantinov 1846.
1852	Goytepe	1	<i>Kavkaz</i> newspaper	A Russian border guard doctor encountered a tiger on the road	Bobylev 1859.

April 1866	Lankaran	2	Radde G.	Locals offer 6 tiger skins, including 2 fresh ones caught near Mineral water 12 versts west of the town.	Radde 1899.
?	Bilasuvar	1	Radde G.	Tiger skull (donated to the Caucasus Museum)	Radde 1899.
1884	Lankaran	2	Radde G.	Tiger seen in winter	Radde 1899.
1896	Talysh Region	2	Dinnik N.Y.	Russian lieutenant and local hunters hunted 2 tigers	Dinnik, N.Ia. 1914
1897	Goytepe	2	Satunin K.A.	A tiger cub whose mother was hunted	Satunin 1906.
February 1899	Goytepe	1	Satunin K.A.	A huge male tiger measuring 5 arshins (350-366 cm) in length.	Satunin 1906
1899	Goytepe	1	Satunin K.A.	A footprint in the snow the size of a 'big plate'.	Satunin 1906

1899	Mughan Plain	1	Satunin K.A.	A footprint was found	Satunin 1906
1932	Goytepe	2	Vereshchagin N. K	The last Turanian (male and female) tigers hunted and killed in Azerbaijan.	Vereshchagin 1942.

People normally hunted tigers in the Talysh forests by way of ambushes. Hunters waited in high trees in the forest inaccessible to the tiger, while the rest of the group chased the tiger towards those in the trees. People were rarely said to have hunted tigers alone (Konstantinov 1846).

In the mid-19th century between 10 and 20 Turanian tigers were seen annually in Lankaran and adjacent areas alone (Brandt 1856), yet between 1920 and 1950 tigers were recorded only 2 times throughout the South Caucasus, with individual animals shot in 1922 near Tbilisi and in 1932 at Goytepe (Vereshchagin 1967). Although more recent literature emphasizes that Azerbaijanis and others recorded observations of tigers in the middle of the last century, these do not reflect reality and are probably sightings of leopards. In 1950 there were only 50-80 individuals of the Turanian tiger left in the world, and by that time they had become extinct in the Soviet Union (Sokolov 1986). The main reasons for the species' decline were hunting, habitat destruction, and the decline of its prey base. According to Vereshchagin (1967), for example, 43 wild boars were killed in a single day's hunting in Garayazi alone.

Based on historical findings, the tiger's prime habitats in the Caucasus were the Talysh Region located in the southeast of Azerbaijan, in particular Goytepe and adjacent territories. Rarely some tigers following rivers could be found in other regions across the Caucasus. For example, the individuals hunted in Karabakh (1846) and around Tiflis (1922),

respectively, might have been seen there following the Araz and Kura rivers. Although tigers were rare in the Caucasus in the 1930s, they also roamed over most of the northern provinces of Iran, and there were hundreds of them (Rossi et al. 2020). Since tigers, especially young males, are known to travel long distances, it can be assumed that by the middle of the last century, a small number of tigers could have entered Azerbaijan through Iran. Although some sources (Geptner and Sludsky 1972) indicate that tigers were recorded in the Lankaran plain in the 1950s and 1960s, it is difficult to verify the accuracy of these observations. The main reason for this is that the meaning of the word tiger in Azerbaijani does not coincide with the meaning of the corresponding word in the Persian and Talish languages. That is, the word tiger (*babr*) in these languages actually means the animal Azerbaijani Turks call a leopard (lat. *Panthera pardus*). Azerbaijanis use the word *palang* to describe a tiger, yet that same word means leopard in Talysh. In other words, when the local population said they saw a “tiger” in the Talysh area, they may have meant leopards and their words were simply misinterpreted by Azerbaijani observers.

Tiger Reestablishment Potential in Azerbaijan

It is estimated that a maximum of 3,159 tigers remain in the wild, most of which are Bengal tigers (Goodrich et al. 2015). The fact that Turanian tiger subspecies is genetically identical to the Amur tiger offers new possibilities. This means that Amur tigers can be reintroduced into the historical range of Turanian tigers. The Amur tiger's population is currently primarily found only in scattered populations of about 480-540 individuals (Hance 2015). Although various large mammals (gazelles, deer, and bison) are being reintroduced in Azerbaijan, the reintroduction of predatory mammals is a rather complicated process. Tigers need dense vegetation in which to hide and stalk prey, adequate food supplies, and water sources.

Nevertheless, other countries are now examining projects tailored to reintroduce Amur tigers into the historical range of the Turanian tiger. One of them is in Kazakhstan. Chestin et al. (2017) have suggested that the 7,000-square-kilometer area around the Ili River delta and the Lake Balkhash (Ily-Balkash Basin) could support a population of about 100 wild tigers within 50 years.

Azerbaijan has experienced an accelerated urbanization process, leading to the development of large-scale infrastructure in the territories that are historical tiger lands (Talysh Region). With the extinction of the tiger population, we can surmise that the population of wild boars, which is the main prey, increased in the area. This means that the prey base is potentially plentiful. Currently, various predators (mainly leopard *Panthera pardus* and wolf *Canis lupus*) prey on wild boars in this region. Tigers occupied a variety of habitats, from reed thickets to tugai forests near freshwater bodies (rivers and lakes), which are currently decreasing in size in the region. The average minimum territory size for an individual Amur tiger is around 40-100 sq. km (Jungius et al. 2009). Considering all this, tiger reintroduction in Azerbaijan does not seem possible in the near future.

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